

The valve 229 has a movable element disposed therein for connecting line 228 selectively with pressure line 230 or with an exhaust port 231. Valve 229 is actuated by a solenoid device 232 connected through conductors 234 and 236 to the leads of motor 20.

From the foregoing it should be readily apparent that when motor 20 is energized solenoid 232 will be energized causing valve 229 to be manipulated to connect line 228 to the vent port 231, allowing spring 222e to urge piston 222c and consequently, the mixing bit 25 upwardly to move the valve member 25v away from valve seat 27v.

When motor 20 is de-energized solenoid 232 is also deenergized causing valve 229 to connect pressure line 230 with line 228 to deliver pressure fluid through passage 227 in swivel 223, through passage 23b in shaft 23a to the hollow portion 222b of coupling 222 thus urging the piston 222c and valve member 25v downwardly to close the dispensing spout 27a.

A third form of the coupling is designated by the numeral 322 in FIG. 15 of the drawing wherein the shaft 25a of the mixing bit is secured by set screw 323 in a passage 324 in tubular member 325. A guide pin 326 extends into a passage in the hollow shaft 23 of motor 20. A pin 327 is slidably disposed in a slotted opening 326d in the wall of guide pin 326 allowing the guide pin 326 to move longitudinally through the opening therein.

A weight 328 is connected through links 329 and 330 to body member 325 and to pin 327, respectively. A second weight 332 is connected through links 334 and 336 to body portion 325 and pin 327, respectively.

A spring 338 is positioned between the lower end of shaft 23 and the upper surface of body portion 325 to urge the body portion 325 and consequently valve member 25v on the lower end of mixing bit 25 downwardly to bias the sliding joint in the coupling toward an extended position.

It should be readily apparent that when motor 20 is deenergized spring 328 urges the valve member 25v into engagement with valve seat 27v. However, when motor 20 is energized centrifugal force will urge weights 328 and 332 outwardly, applying an upward force to the body portion 325 and bit 25 to move the valve member 27v away from seat 27v.

A fourth form of the device generally designated by the numeral 422 is illustrated in FIG. 16.

Shaft 25a of mixing bit 25 extends into a hollow portion of tubular member 423 and is retained therein by a set screw 424. The upper portion of body member 423 has a hollow passage 426 formed therein and the squared end of shaft 23 of motor 20 is telescopically disposed therein.

Weights 430 and 432 are connected through spring members 434 and 436 to the shaft 23 of motor 20 and to the body portion 423. Springs 434 and 436 are adapted to urge the body portion 423 downwardly.

When motor 20 is energized centrifugal force urges weights 430 and 432 outwardly causing springs 434 and 436 to apply an upward force on body member 423 to thereby move the valve member 25v upwardly.

The forms of the coupling 22 illustrated in FIGS. 9, 14, 15 and 16 provide alternate means for moving mixing bit 25 longitudinally through the head for opening and closing the passage in the pouring spout 27a.

It should be appreciated that other means, such as a solenoid device for urging the bit longitudinally for

opening the valve and for engaging suitable friction drive means, may be employed to impart the desired movement to valve member 25v and the mixing bit 25.

It will thus be seen that I have provided a resin-catalyst mixing and dispensing device wherein the resin and catalyst may be continuously circulated while it is heated and maintained in such state to maintain the desired viscosity for optimum dispensing, wherein the resin-catalyst mixture may be dispensed in measured quantities and thoroughly agitated and mixed before dispensing, and wherein the mixing and dispensing head may be quickly cleaned and purged while the catalyst and resin material are continued to be circulated through the system and the temperatures thereof are maintained. Safety alarms, both visual and audible, are provided for indicating when the system is in operation when the pressure increases therein to a dangerous extent, and when dispensing has been discontinued for a dangerous length of time to thereby require purging.

I have provided a portable device which is relatively inexpensive to manufacture, easy to use, disassemble and repair and which is economical in its operation and provides for maximum production.

It will be understood that other and further embodiments of my invention may be devised without departing from the basic concept of the invention.

Having described my invention I claim:

1. In a mixing and dispensing device, a head having a central passage therethrough; a valve seat in said passage adjacent an end thereof; a member having spiral convolutions on a portion of the outer surface thereof; valve means on said member; means to rotatably secure the member in the central passage; means to move said member longitudinally in said passage to move the valve means between positions engaging and disengaging said valve seat; means to rotate said member in said passage; a container for liquid resin; a container for catalyst; separate circulation conduits for the resin and catalyst; means to circulate fluid through each of the conduits; a heater device arranged in heat exchange relation with each of the conduits; heat sensor means in heat exchange relation with each of said circulation conduits; means to operably connect the heat sensor means to the heater device to control the temperature of the fluid as it flows through each conduit; and separate valve means between the head and the conduits arranged to operate in unison to simultaneously bring the conduits into communication with the central passage through the head.

2. The combination called for in claim 1 wherein the means to rotate the member in the passage comprises a motor having a shaft; and means to connect the shaft to the said member.

3. The combination called for in claim 2 wherein the means to move the member longitudinally in the passage comprises means to change the length of the means to connect the shaft to the member to cause said member to move relative to the motor.

4. The combination called for in claim 1 wherein the valve means comprises a ball secured to an end of the member.

5. The combination called for in claim 1 wherein the means to move the member to move the valve means comprises pressure actuated means adapted to selectively urge the member in opposite directions.

6. The combination called for in claim 1 wherein the means to move the member to move the valve means